

## Testimony By Dr. James H. Billington, JoAnne Jenkins, Deanna Marcum, Laura Campbell

Chairman Ehlers, Ms. Millender-McDonald and members of the Committee:

It is a pleasure and honor to appear before this committee and to thank you for the strong support and wise counsel you have given the Library of Congress over so many years. I appreciate the opportunity to highlight for you some of the exciting developments, initiatives and challenges that are transforming the Library of Congress, and sketch out the emerging road map for Congress' Library in the 21st century.

### The Library of the 21st Century

The Congress of the United States has been the greatest patron of a library in the history of the world. Building on its purchase of Thomas Jefferson's large and wide-ranging personal library, the Congress has created and sustained what is now the world's largest repository of recorded knowledge, in the widest variety of languages and formats, and the most exhaustive record anywhere of the rich and diverse creativity of the American people.

The overwhelming challenge facing the Library in its third century is how to superimpose the exploding world of digital knowledge and information onto the still expanding world of books and other traditional analog materials. How can we preserve and seamlessly integrate these two worlds so that we can continue to provide Congress and the American people the objective and dependable information and knowledge that is needed more than ever in this

information age?

There is no change in the Library's basic mission of acquiring, preserving and making accessible the world's knowledge and the nation's creativity. But the way in which everything is done is changing -- and has to change -- in the face of the greatest revolution in the generation and communication of knowledge since the advent of the printing press.

The Congress charged us in 2000 to develop a National Digital Information Infrastructure and Preservation Program (NDIIPP). Through NDIIPP, the Library is building a national network of diverse partnerships to collect, save and provide access to a body of high quality educational content in digital form. We have been working closely with content providers, technology innovators, libraries, archives, and end-users to advance the science and practice of preserving important digital materials that are perishable and often exist only in digital form. The Library now has a total of 256 terabytes of digital content under our management, including 66 terabytes of digital material preserved by 67 partners across the nation. By the year 2010 we estimate there will be double that amount.

But the Library also preserves and makes accessible 132 million traditional analog items (books, manuscripts, maps, music and movies) and we constantly seek to bring the best of traditional librarianship into the digital world. We hold fast to the principles of free and equitable access and long-term preservation. We have to transform much of our workforce into a new kind of knowledge navigator that draws equally on our new digital materials and traditional artifactual items. And we are helping develop standards and protocols for the electronic sharing of bibliographic records just as the Library did for the print world with its cataloging records, at the dawn of the 20th century.

Our new role is not limited to creating endless digital data files. We are here giving our collections context and meaning and offering them in increasingly expansive ways back to the world. We began this "first generation" of transformation thoughtfully and selectively. Congress encouraged us to create the THOMAS system in 1995, which has given public a new, simple way to access legislative information. THOMAS remains the predominant free access tool for the public to find out what is going on in Congress, and we continue to work with the Government Printing Office to add information from pre-digital Congresses. Congress also supported, with federal matching funds, our early public-private partnerships to digitize and make accessible our historically significant, unique Americana collections that had previously been available only to scholars visiting on site. Today, our American Memory website offers well over 10 million historical items, culled from our vast holdings as well as those of partner institutions from all over the country. We are also adding cultural materials from several international partner organizations.

Building on our early digital experiences, we have carefully considered how to make our collections and processes serve our mission in new ways that take advantage of new technologies. Again with Congress' support, we are providing or preparing to provide service to Congress and the public in many new and innovative ways:

- \$ Providing digital analytic support on over 170 current legislative issues, available 24/7 from the Congressional Research Service (CRS);

- \$ Planning and designing the upcoming release of a new program of Digital Talking Books for the blind and physically handicapped;

- \$ Re-engineering our public delivery of copyright services to accommodate future growth in electronic registrations;

- \$ Collecting and making accessible first-person stories under the Veterans History Project and other documentary efforts to capture and

- preserve histories of ordinary citizens;

- \$ Working with teachers and university faculty to integrate our primary source digital collections into K-12 curricula;

- \$ Expanding our international

capacity and outreach through our Law Library=s Global Legal Information Network and the World Digital

Library,  
discussed in more detail below.

\$ Creating of LCNet, a  
Congress-only website to provide online information about events at the Library  
and basic services (book loans,

tours, space  
reservations).

Congress and the public's interest in our digital offerings grows significantly each year. Our websites are visited by 250 thousand individuals a day, on average. In 2005 the Library's collective major websites (American Memory, THOMAS legislative information, and Library catalogs) received 3.7 million "hits," an increase of ten percent over 2004. We project at year's end another 20 percent increase over last year.

In this new environment, we have not lost sight of our unique ability to bring our collections alive in traditional ways. Our knowledgeable curators work every day with scholars and creators who use the collections to create new knowledge. We celebrate reading and literacy every day through the efforts of our Center for the Book, partnering with institutions in every state. Each year since 2001 we have had the privilege of co-hosting, with the First Lady, the National Book Festival here in Washington, which has grown to encompass crowds of 100,000 book lovers meeting 70 authors from across the literary spectrum. We traveled from the heartland to both coasts to a "theater near you," featuring acclaimed baritone Thomas Hampson singing American song from the Library's incomparable music collections. We are designing a new visitor experience to introduce Congress' library to the crowds who will visit the Thomas Jefferson Building when the Capitol Visitor Center opens in 2007.

But the need to stay ahead of the digital curve affects nearly every aspect of the Library's work:

- Sustaining our collections. We need to determine how to select, acquire, and store the digital and online works that are required to keep our collections complete and meet the information needs of our users. Our collections strategies must be current and agile. We will need to evaluate electronic databases, multimedia creations, digitally linked resources, and digital material in formats yet to be invented. We will work toward developing processes, particularly for items received through copyright registration and mandatory deposit, that accommodate both physical and digital items.

- Preservation.

As digital works are added to the collections, we need a technology infrastructure in place that ensures that their content will be available for future generations. We are taking the lead on developing national solutions, making investments in basic and applied research by and through partnerships to ensure long-term storage, preservation and authenticity of digital content during times of rapid technological change. For example, we determined that most state governments lack sufficient capabilities and resources to preserve state government digital information, and we are now creating opportunities for states to collaborate on multi-state demonstration projects. We continue to leverage technical infrastructure capacities and expertise that resides within and without traditional library and archival communities, to encourage shared commitment to content stewardship.

- Access.

Digital technology and networks provide ways to deliver content to a vastly broader range of Library users. In the last ten years we have made millions of items from our collections widely available through the Internet. We need to continue to take the best advantage of these opportunities. We need to understand how users want to access and navigate through our collections and, to the maximum extent possible, meet the users' requirements, not just impose a system on them. We will think differently about how we describe material, working closely with other libraries that rely on the records we create. We will encourage the use of bibliographic records created outside the Library when appropriate. Our own cataloging efforts will focus on creating metadata that we cannot get in any other form. We will need to make such material easy to identify for Internet searchers, to keep it "readable" from one generation of computerware to the next, to authenticate the accuracy and reliability of electronic copies, and to secure them against tampering and unauthorized users. We will do this while respecting U. S. copyright law and international agreements.

- Our workforce.

The Library's fulfillment of its mission tomorrow will always depend on the foresight of our staff (from the Library's inception through the present) to collect, preserve and make available human creativity. All of our Library staff need to use, and to varying degrees become expert in, changing technologies as they apply to our work.

To achieve these goals, we have begun an intensive strategic-planning process that will ultimately transform our collection policies, our institutional infrastructure, our buildings' public spaces, and our workforce. The Library has developed an agency-wide framework for program assessment of every division and support office. Congressional support has already enabled us to re-engineer copyright functions and to create a state of the art National Audiovisual Conservation Center. And we are developing new roles for key staff to become objective "knowledge navigators" who can make knowledge useful from both the artifactual and the digital world.

All of these processes will be carried out in the spirit of Government Performance Results Act, which will guide us in what will have to be a major transformation of our workforce. We must continue to integrate and be open to new technology and best business practices library-wide -- and to maximize fairness and diversity in building the workforce of the future. This work will continue through FY 2006, culminating in a comprehensive, updated strategic plan for FY 2008-2013, from which we will derive future budget requests.

Applying the expertise and dedication of our staff is necessary to meet these strategic goals. We have shared with Congress some of our ongoing efforts to ensure the professional development of our staff, through training, mentoring, and performance planning and evaluation. We have a large number of staff who are retirement-eligible. As retirements occur, our challenge will be to recruit staff best able to advance our goals.

National Audiovisual Conservation  
Center

A significant component of the Library of the 21st Century is the National Audiovisual Conservation Center (NAVCC) located in Culpeper, Virginia. The NAVCC is first and foremost a center to develop, preserve and provide broader access to the Library's comprehensive and valued collection of the world's audiovisual heritage for the benefit of Congress and the nation's citizens. However, NAVCC plans matured during a period of rapid development in the field of digital preservation. Consequently, the final plans include significant digital technology with design and implementation efforts that have employed state of the art approaches and components.

Unprecedented in size, scope and funding for the Library of Congress, construction of the audiovisual conservation center has been made possible by a three-way partnership among the Library of Congress, the Packard Humanities Institute (PHI) and the Architect of the Capitol. Authorized by Congress (P.L. 105-44), NAVCC has been built and funded by the Packard Humanities Institute at a projected cost of more than \$150 million, the largest single private gift in the history of the Library. To date, Congress has appropriated \$53 million over 4 fiscal years (FY03-FY06) to support the facility at Culpeper, for which we are deeply grateful.

The genesis of this state of the art facility was the establishment of the American Television and Radio Archive (ATRA) in the Library of Congress as part of the Copyright Act of 1976 to preserve a permanent and accessible public record of the television and radio programs that are the heritage of the people of the United States.

Thousands of items of our contemporary culture are acquired, preserved, cataloged, and added to the ATRA collection each year, making the Library of Congress the largest and most comprehensive research archive of historical American broadcast programming.

The Library's landmark 1997 study of the condition and survival rates of American videotape and television media since the 1940s was the first nationwide survey of its kind. It documents lost segments of broadcast history and the lack of archival conditions in which many important private

collections are held, underscoring the critical need for the conservation work to be undertaken in Culpeper.

For the first time in the Library's history, we will consolidate its more than 5 million item audiovisual collections, currently held in less-than-ideal conditions in three states and the District of Columbia, at one state-of-the-art facility where they can be stored and preserved in an environment with the most appropriate temperature and humidity and made more easily available to scholars from around the world. The current design provides for 25 years of collections growth.

The Library's audio-visual collection consists of more than 1 million moving images of theatrical films, newsreels, television programs, educational, industrial and advertising material; nearly 3 million audio collection items including commercial sound recordings, radio broadcasts, and early voice recordings of historical figures, as well as more than 1.7 million supporting documents, screenplays, manuscripts, photographs, and press kits. To date, more than 2 million items have already been transferred to the Culpeper facility.

NAVCC incorporates the best of proven digital technology in systems that are being developed in a highly modular fashion, allowing nimble and cost-effective responses to changing preservation and access needs in the digital future. Cutting edge policies and procedures developed at the Center will be adopted elsewhere, both internally and by the broader library and archival community throughout the country and the world. NAVCC will fully integrate the acquisition of born digital and converted material into a single processing flow.



The NAVCC campus construction began in August 2003 in two phases. The 415,000 square foot complex will include four buildings--under Phase 1 the Collections Storage and Central Plant were turned over to AOC and the Library in 2005. Phase 2, the remainder of the site, is scheduled for delivery in the spring of 2007; this includes the Conservation Building with staff offices, preservation labs, and a 200-seat theater. A separate building will house two large storage pods containing 124 specially constructed vaults for the delicate and combustible nitrate film collection.

The NAVCC campus will be largely underground, except for the west front of the Conservation Building, which will curve out from the side of the mountain in a half circle. In a novel and complex landscaping feat, the top and side of Mount Pony were scraped off the building site and set aside during construction. The earth is being replaced over the tops of the completed buildings, and the mountain slope and surrounding landscape are being replanted with 7700 trees, shrubs and plants showcasing 75 different species -- making the site the largest reforestation project on the east coast.

#### National Digital Library Information Infrastructure and Preservation Program

I am pleased to tell you about our success as we reach the halfway point in our national program to preserve America's cultural and digital heritage. NDIIPP, which Congress had the foresight to support so generously when it established the program in 2000, already has 67 formal partners (and will soon be adding more) operating under 28 agreements representing both private and public concerns who are working to collect and preserve digital content.

So far, we have made significant investments in three areas:

\$ Acquiring, preserving and providing access to digital content

\$ Engineering the technical infrastructure to support preservation, and

\$ Conducting digital preservation research to ensure that what is preserved today is accessible tomorrow.

We have brought diverse groups together within the digital preservation program that would likely not otherwise have the chance to collaborate. These NDIIPP partners are institutions large and small, other government agencies, companies in the public and private sectors, educational institutions, research laboratories and other organizations both in the United States and abroad. NDIIPP has become a community of practitioners sharing a complex challenge and leveraging what any one institution can do alone.

Because the U.S. Congress had the foresight to address the need for preservation of the most important digital content before it is lost forever, we have had the opportunity to engage a diverse set of experts in the technology and archival fields. The seeding of this network, a community of committed partners, will produce by the year 2010 a national collection of millions of digital works, establish partnerships with over 150 organizations, provide for interoperability among the partners, and develop tools and models that make it more cost-efficient to capture, preserve and deliver digital works. The state of digital preservation will be one of shared responsibility and costs for what was once the responsibility of only a few large research libraries. Further, the network will foster the use of the collection as a national resource for educational institutions moving toward an information utility for the country. The humanities community is teaming with the sciences, NSF's Cyberinfrastructure Program, to make the national digital collection as comprehensive as possible. The transformation to a society where information will be as expected as electricity, water and highways is underway and we are really proud to be a large part of this change. By 2010 we will be well along to shared access to information across a network of institutions with defined roles and responsibilities for acquiring and preserving digital content.

With matching funds, we have judiciously made these investment awards across a broad spectrum of content and geographical location. Just last week, our NDIIPP partners (federal, public and private) assembled in Washington for their semiannual meeting. These pioneers in digital preservation are helping us spread the word about the urgency of saving digital materials that are at risk of being lost, and working collaboratively to ensure that scarce federal and matching funds are wisely spent.

By leveraging the expertise of the Library and its partners, we are learning how to build a national digital stewardship network; we are building a technical infrastructure that will ensure interoperability but allow enough flexibility so that current and future partners can join the network; and we are exploring public policy issues such as how to decide what is worth preserving and how to maximize scarce human and financial resources to assure the continued sustenance of the digital preservation network.

Our next set of investments will focus on sustaining our current partners and reaching out to new communities. Last May, we issued a Request for Expressions of Interest to all 50 states, the District of Columbia and U.S. territories. We want to expand the NDIIPP network to include demonstration projects for preservation of important state government records (legislative data, court records and other state information) that is of vital interest to Congress. This request grows out of a series of three workshops we held in Washington a year ago that gathered more than 150 representatives from libraries, archives and information technology organizations. We learned about their interests and current work in digital preservation, the types of issues they face and how these commonalities of interest can be leveraged to advance the NDIIPP collaborative partnership network. We have received 19 expressions of interest representing 30 states, many of which will be partnering with the private sector. The awards we make in this initiative will help us determine the practicability of establishing multi-state facilities in various regions of the country for the storage of critical information and to assure data recovery in the event of disaster.

Last week we launched a project called Preserving Creative America. It is our initiative to join with the commercial producers of creative content -- digital film, music, photography, other forms of pictorial art and even video games -- in developing strategies for the preservation of American creativity in all its forms. Preserving Creative America will help us identify common problems and solutions that are shared by private industry as well as libraries and archives. Of particular interest is the development of common standards for electronic deposit of materials submitted for copyright registration.

We have also issued a request for expressions of interest in continued development of the technical architecture that will ensure the accessibility of the digital content we are collecting. This work will strengthen the technical architecture that supports the content partnerships, including establishing environments for redundant, geographically dispersed storage of content; conducting additional tests to study how large archives of data can be transferred successfully among institutions without corruption; and leveraging the work of all the NDIIPP partners to create tools and services that can easily be used by others.

The missions of the Library of Congress, the Government Printing Office and the National Archives and Records Administration are complementary yet different. Our NDIIPP is focusing on the preservation of born-digital materials, that is, materials for which there is no analog, or physical, equivalent. These materials represent the cultural, historical and intellectual heritage of the nation. The National Archives is preserving the electronic records of the United States, and the Government Printing Office preserves the published output of the federal government.

Our 27-member National Digital Strategy Advisory Board, which includes eight

other federal agencies and includes the National Archives and the Government Printing Office, has successfully come together in the spirit of cooperation to identify digital preservation standards and policies across the federal government.

Although our sister agencies are also engaged in digital preservation, there is no duplication of effort. In fact, we invited other government agencies, as mandated by the NDIIPP legislation, to be a part of our advisory board to ensure that the insights gained through the digital preservation efforts of the other agencies would have a forum for information-sharing. All the agencies on this board are deliberating on the best practices for digital preservation in order to make strategic decisions for moving forward and leveraging our respective technology developments.

As we enter the second half of this unprecedented initiative to preserve at-risk digital content, we will continue to demonstrate that we have a plan to maintain and grow this network, and that the information we save today will be accessible to Congress and your constituents tomorrow. America's dynamic democracy is built on the cornerstone of knowledge. If we take steps now to collect, preserve and make accessible that knowledge -- and to make others aware of this urgent need -- we will leave to our descendants an invaluable legacy to sustain this great nation for centuries to come.

The World Digital Library

The Library of Congress is making good progress in its initiative build a World Digital Library (WDL) for use by other libraries around the globe. The project is supported through funds from nonexclusive public and private partnerships. Our first partnership is with Google, which has provided \$3 million to plan the WDL.

The WDL will draw upon the experience of the Library of Congress and other national libraries and cultural institutions from around the world to create an unprecedented collection of significant primary materials in digital form that document many different cultures. Content will come through digitization of unique and rare materials, including manuscripts, maps, rare books, musical scores, sound recordings, films, photographs, drawings, and other materials. Most of the material will be older and free of copyright restrictions.

A two-year process is now underway at the Library to develop a comprehensive plan for the creation of the WDL. Among the topics under discussion are technical specifications for digital scanning, storage and access; selection of material to be scanned; and governance and funding. Participants in the planning process will be the private sector, other national libraries, the United Nations Educational, Scientific and Cultural Organization (UNESCO), and the International Federation of Library Associations (IFLA).

A number of pilot projects are underway with Russia, France, Brazil and Egypt. We are quite pleased that the Library has reached agreement with the national Library of Egypt in Cairo to supply equipment and training to produce materials for a pilot focused on Egypt in the Islamic world. The Library has also reached an agreement with the Bibliotheca Alexandrina to join the WDL to scan collections devoted to the history of Alexandria Egypt, from the 15th to the early 20th century.

This project offers the Library, and our nation, a fine opportunity to broadly share knowledge about different cultures. People from all nations will be able to learn from each other and help spread the light of learning and global awareness around the world.

#### Jefferson Building Visitor Experience

The United States Congress has collected and sustained the world's greatest repository of knowledge at the Library of Congress. Currently, about 1.4 million visitors each year tour the Library's magnificent Thomas Jefferson Building. In the fall of 2007, visitors will be able to enter the Jefferson Building -- either through the passageway connection from the newly opened Capitol Visitors Center or through the grand bronze doors above the Neptune Fountain -- and experience the art and architecture of the building and learn how the Library works to acquire and preserve knowledge and make it available. The new Jefferson Visitor Experience will complement the exhibits in the new Capitol Visitors Center and celebrate Congress' role in preserving the creativity of the American people.

The Jefferson Visitors Experience will focus on "Bringing Knowledge Into Life" with ten exhibitions that will highlight areas of the Library's vast collections and utilize state-of-the-art interactive technology to link the visitor back to the Library's on-line digital resources for teaching and life long learning. Anticipating the completion of the passageway from the Capitol Visitors

#### Center to the Jefferson Building

in the next few weeks, the Library has already begun raising private funds that will make the Visitors Experience come to life and celebrate the Congress' role in bringing knowledge into the lives of an even larger audience.

Signs, graphics and way-finding information stations will allow CVC visitors to move seamlessly to the Library from the CVC where they will proceed to orientation galleries on both sides of the Jefferson Building Great Hall.

At interactive kiosks, visitors will be able to learn how they can pursue their interests and shape their visit. They will be able to pick up their Knowledge Quest Passports to use during their visit and link them back to information sources on the Library's website. As a central experience, visitors will take an interactive tour of the Great Hall to see the beauty and understand the meaning of the Jefferson Building and its relationship to the Congress and to the Library's history.

Exhibits will play a central role in the visitor experience.

The Library will reinstall Thomas Jefferson's original 6,487 volume library, first featured during the Library's bicentennial celebration in 2000, with state-of-the-art technology. This gallery will allow visitors to examine virtually Jefferson's books and their influence on this institution, his thinking, and the world.

The newly acquired Jay I. Kislak collection, which focuses on the early Americas from the time of the indigenous people of Mexico, Central America, and the Caribbean through the period of



European contact, exploration, and settlement, will be a centerpiece of the 2007 experience. Our current thinking is that visitors will enter the exhibition space from two possible pathways. The first, "Behind the Scenes," will take visitors through the Jefferson Building, giving them an unprecedented look into the distribution of books and other normally "hidden" workings of the Library. The second, "Journey through the World of Books," will allow visitors to sample a section of great books from different periods of history and offer an overlook view into the Main Reading Room.

Phase two of the Jefferson Visitor Experience consists of three galleries, each of which will have interactive features and a focus that emphasize important aspects of the Library's collections.

"Creating the U.S.":

This gallery, replete with original materials, will begin with a focus on the creativity involved in the founding of the American republic. The remainder of the gallery will present materials from different epochs of the American past and explore how they have continued to shape the American experience.

"Discovering the World": With the recently acquired 1507 Waldseemhller world map as the centerpiece, this gallery will present an array of maps and other materials that document the early explorations of the western hemisphere. The Waldseemhller map was the first map, printed or manuscript, to use the name "America," to depict the lands of a separate Western Hemisphere and to show the Pacific as a separate ocean. The 1507 map reflected a huge leap forward in knowledge of the world's expanse.

"Interacting with the Library through Technology": A highly interactive, new technology gallery that is child and family oriented, this space will invite visitors to experience a fun filled but in depth sampling of the Library's most compelling collections: dance, song, poetry, the country's revolutionary roots, examining the thinking and words of U.S. presidents, viewing multi media presentations of historical periods, and tracing the musical origins of popular songs.

Each visitor's "Passport to Knowledge" from the new Jefferson experience will direct visitors to our acclaimed website where they will be able to continue their journey of exploration in the Library's online collection of more than 10 million items. It is our hope that visitors will also leave with a deeper understanding and appreciation of Congress' role in creating and nurturing its Library and providing the means for broad access by the American -- and global -- community to the Library's collections.

All of this will be accomplished without any major reconstruction of the Jefferson Building space and with private contributions. The creation of the Jefferson Visitor Experience will not require any capital construction beyond completion of the CVC tunnel (which is under the management of the AOC and on time and within budget). Individual donors will be recognized for three years within exhibit areas, consistent with Library policy for the past decade. After its completion, the Library will have significantly more public and exhibition space than now and we will illuminate the building and institution in new ways.

My colleagues and I look forward eagerly to meeting the challenges and opportunities presented as we integrate the digital world into our traditional artifactual collections and maintain and make increasingly accessible the world's largest repository of human knowledge. It is an awesome responsibility but one which we relish. The Library looks forward to working with you and your colleagues in the Congress in the years ahead.